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(71) Applicant: SOGANG UNIVERSITY CORPORATION

(72) Inventor: RHEE, HEE WOO
YOON, DO YOUNG
CHAR, KOOK HEON
LEE, JIN KYU
MOON, BONG JIN
MIN, SUNG KYU
PARK, SE JUNG
SHIN, JAE JIN

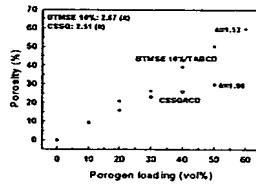
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(54) ULTRA-LOW DIELECTRICS FOR COPPER INTERCONNECT IMPROVING AIR GAP RATIO AND PERMITTIVITY

(57) Abstract:

PURPOSE: A method for forming fine patterns of a semiconductor device is provided to improve an air gap ratio and the permittivity by using an ultra-low dielectric film formed of polyalkylsilsesquioxanes precursor. CONSTITUTION: An ultra-low dielectric film is produced by coating an organic and inorganic mixed solution dissolved in an organic solvent. A polyalkylsilsesquioxanes precursor or a copolymer thereof of 40 to 70 vol % as a matrix and a nano grain of acetylcyclodextrin of 30 to 60 vol % as a template are dissolved in the organic solvent.



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